Duke Energy

To echo what others have said, thank you for hosting the queue reform workshop. As the utility systems have shifted from centralized generation to distributed generation, we are grateful that PJM has pursued reforming the queue based on current system needs. Duke's comments on the call are given below:

- 1) We agree with others on the presentation to remove the feasibility study from the queue process and make the system impact study the first phase, followed by another detailed study during the facility study phase. If the developers find little value, the extra work by the TO's isn't necessary and in our experience, very few IC's drop out between the feasibility and system impact phase.
- 2) Along with running the current contingency set (Double Circuit Tower Line, Fault with a Stuck Breaker, and Bus Fault contingencies) PJM runs at MFO for the current queue, we recommend running single element (N-1) contingencies at MFO as well. Given that generation is no longer centralized, our concern is that when the MFO of the queued generators outside our service territory are modeled along with generators in our service territory they pose a high risk of overloading a line during an N-1 contingency event. For example, if you model the queued generation at MFO and there is a three-breaker ring bus near a tie line we have that has a generator attached to it, and you assume there is another generator near that tie line that is in the other utility's service area, if there is a stuck breaker event on that three breaker ring bus that we own it'll open the bus and the system will adjust as necessary. If, however, only one line goes out at our ring bus the generation could sum together and overload a section of line that would normally have gone out during a stuck breaker event. It's my understanding that this scenario would not be captured in the current analysis, leaving PJM members to pay for upgrades caused by decentralized generators connecting to our system.
- 3) We agree with closing the queues two months ahead of time or giving a longer timeframe for the studies to give PJM and the TO's time to carry out a proper and not hurried analysis. This will help to reduce any human performance error that may be caused by being rushed to complete an analysis.

Overall, thank you for the opportunity to comment on improving the queue process, and if there are any further questions or concerns, please feel free to contact us.

Thank You,

Christopher Kidwell, P.E., MBA Duke Energy Transmission Planner